What is claimed is:

- 1. A solid polymer fuel cell comprising a plurality of unit cells stacked one after another, said unit cell comprising an electrode of an anion exchange membrane and an electrode of a cation exchange membrane disposed adjacent but not in contact with each other, gas diffusion layers commonly disposed on both sides of these electrodes for allowing electrons generated on the catalysts to pass, and interconnectors which are disposed outside the gas diffusion layers and serve as a current carrier having a gas channel.
- 2. A fuel cell according to claim 1, wherein the gas passage for supplying each unit cell with a gas is disposed so as to connect a portion of the gas diffusion layer contiguous to the anion exchange membrane with a portion of the gas diffusion layer contiguous to the cation exchange membrane.